

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1631

Port of Montreal Date of First Survey July 10 Date of Last Survey Nov 5 No. of Visits 8
 No. in on the Iron or Steel SS. "War Seneca" Port belonging to Quebec
 Reg. Book Built at Quebec P.Q. By whom Quinlan & Robertson When built 1918
 Owners Imperial Munitions Board Owners' Address Montreal, Ont.
 Yard No. 2 Electric Light Installation fitted by Imperial Munitions Board When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 10 KW set. Enclosed high speed Eddie Mculloch engine direct coupled to General Electric Co's dynamo

Capacity of Dynamo 86 Amperes at 120 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Bottom platform in engine room Whether single or double wire system is used Double

Position of Main Switch Board " " " " " " having switches to groups Six of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each All distribution boxes.

If fuses are fitted on main switch board to the cables of main circuit Yes and on each auxiliary switch board to the cables of auxiliary circuits Yes and at each position where a cable is branched or reduced in size Yes and to each lamp circuit Yes

If vessel is wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits Yes

Are the fuses of non-oxidisable metal Yes and constructed to fuse at an excess of 50 per cent over the normal current

Are all fuses fitted in easily accessible positions Yes Are the fuses of standard dimensions Yes If wire fuses are used are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit Cartridge fuses

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for arranged in the following groups:—

A Navigation	5 lights each of	32	candle power requiring a total current of	5.5	Amperes
B #1 Accommodation	40			22.0	
B #2	24 lights each of	16	candle power requiring a total current of	13.0	Amperes
C Cargo	36 lights each of	16	candle power requiring a total current of	11.0	Amperes
D Wireless	lights each of	✓	candle power requiring a total current of	12.0	Amperes
E Machinery	38 lights each of	16	candle power requiring a total current of	16.5	Amperes
1 Mast head light with	2 lamps each of 1-2 cp	1-32	candle power requiring a total current of	1.5	Amperes
2 Side light with	2 lamps each of 1-2 cp	1-32	candle power requiring a total current of	3.0	Amperes
6 Cargo lights of	6 —	16	candle power, whether incandescent or arc lights	incandescent	

If arc lights, what protection is provided against fire, sparks, &c. ✓

Where are the switches controlling the masthead and side lights placed In wheel house

DESCRIPTION OF CABLES.

Main cable carrying	83 Amperes, comprised of	19 wires, each	74.5 MILLS S.W.G. diameter,	105500	Circ MILLS square inches total sectional area
Branch cables carrying	22 Amperes, comprised of	7 wires, each	48.6 S.W.G. diameter,	16510	square inches total sectional area
Branch cables carrying	12 Amperes, comprised of	7 wires, each	38.5 S.W.G. diameter,	10380	square inches total sectional area
Leads to lamps carrying	3 Amperes, comprised of	7 wires, each	24.2 S.W.G. diameter,	4107	square inches total sectional area
Cargo light cables carrying	3 Amperes, comprised of	61 wires, each	.010 S.W.G. diameter,	6530	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

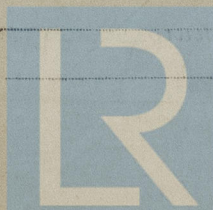
1/32 in of 30% Para rubber, taped, 2 braids and compounded. Drawn into Sheathed conduit. Cast Iron W.T. Junction boxes.

Joints in cables, how made, insulated, and protected Extension box system employing W.T. Insulation porcelain extension blocks.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances Yes Are all joints in accessible positions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage No

Are there any joints in or branches from the cable leading from dynamo to main switch board No

How are the cables led through the ship, and how protected All in steel conduit.



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *Yes*

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *All steel conduit*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Nil*

What special protection has been provided for the cables near boiler casings *Nil*

What special protection has been provided for the cables in engine room *Nil*

How are cables carried through beams *✓* through bulkheads, &c. *W.T. glands*

How are cables carried through decks *W.T. tubes* *✓*

Are any cables run through coal bunkers *No* or cargo spaces *No* or spaces which may be used for carrying cargo, stores, or baggage *Foredeck*

If so, how are they protected *All steel conduit* *✓*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *Yes*

If so, how are the lamp fittings and cable terminals specially protected *Fitted between beams Heavy cast guards & fittings*

Where are the main switches and fuses for these lights fitted *Foredeck alleyway*

If in the spaces, how are they specially protected *✓*

Are any switches or fuses fitted in bunkers *No*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *Plug & switch in W.T. boxes*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *✓*

How are the returns from the lamps connected to the hull *✓*

Are all the joints with the hull in accessible positions *✓*

Is the installation supplied with a voltmeter *Yes* and with an amperemeter *Yes* fixed on *Main Switchboard*

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas *✓*

Are any switches, fuses, or joints of cables fitted in the pump room or companion *✓*

How are the lamps specially protected in places liable to the accumulation of vapour or gas *✓*

The copper used is guaranteed to have a conductivity of not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

The foregoing statements are a correct description of the Electric Light installation fitted by us on this vessel and we declare that it is at this date in good order and safe working condition.

COMPASSES.

Distance between dynamo or electric motors and standard compass *Eighty six feet*

Distance between dynamo or electric motors and steering compass *Eighty feet*

The nearest cables to the compasses are as follows:—

A cable carrying	Ampères	feet from standard compass	feet from steering compass
5.5	10	9	

Have the compasses been adjusted with and without the electric installation at work at full power

The maximum deviation due to electric currents, etc., was found to be _____ degrees on _____ course in the case of the standard compass and _____ degrees on _____ course in the case of the steering compass.

GENERAL REMARKS.

This installation has been duly fitted on board. The materials & workmanship are good. The whole has been tried under full working conditions with satisfactory results.

It is submitted that
this vessel is eligible for
THE RECORD. ELEC. LIGHT

YK
18/12/18

N. J. Alderson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 11.1918

TUE. 29 JUL. 1919.

TUE. JUN. 18 1920

FRI. NOV. 19 1920

TUE. 27 JAN. 1920

TUE. MAR. 23 1920

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